

# CLASSIFICATION OF GOVERNMENT RECEIPTS FROM ALLOWING USE OF SPECTRUM

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## Introduction

This paper records the UK Office for National Statistics' (ONS) views on classifying government receipts from allowing 3<sup>rd</sup> generation (UMTS) mobile phone companies to use the electromagnetic spectrum.

Previous discussion has left two options as possibilities. These are to treat the receipts as:

- rents for the use of a tangible non-produced asset (the spectrum);
- proceeds from the sale of an intangible non-produced asset (the licence).

This paper argues that the rents option is consistent with the principles of SNA93 (and ESA95) and can be implemented with only minor drafting changes to SNA/ESA. We believe the sales option is inconsistent with the principles and could therefore only be implemented if there were major revisions to SNA, which we argue would conflict with treatment of similar assets, such as land.

A limited number of UMTS licences were issued throughout the world in 2000 and 2001, sometimes accompanied by large cash payments. The licences allowed companies to access the spectrum. Different processes for deciding the successful applicants were adopted in different countries. Some held “beauty contests”, awarding licences at a fixed price to whoever they considered the best applicants. The UK government will receive £22.5 billion (approximately €38.5 billion euro) in receipts. It adopted an auction process, with bidders first having to undergo a suitability test before being allowed to enter the auctions. The auction in Germany also raised substantial amounts.

The classification of receipts is being debated in a number of international meetings. In July Eurostat announced a decision that the receipts should be treated as sales of assets. The UK ONS believes that this decision contradicts the current SNA/ESA, and that adopting the treatment conflicts with the protocol to the Maastricht Treaty.

A summary of where Eurostat's decision conflict with SNA and ESA is:

- the analogous cases of land and sub-soil assets are treated differently;
- it puts the value in the licence rather than the spectrum, which is inconsistent with the treatment of land, where the value is in the land;
- the key paragraph in SNA on this issue (10.129) is consistent with treatment as rent and points towards that as the correct treatment in the spectrum case;
- in discussing concessions (equivalent to licences) SNA only covers resale of concessions, not the initial granting of the concession, thus recognising there is a difference between granting and subsequent sales;
- it mentions a number of special cases defined using principles that are not covered in SNA or ESA, for example that to be treated as rent the licence must be less than five years;
- the references in SNA/ESA that are claimed to support the sales option only cover transferable licences, in the European Union licences are non-transferable;
- applying the Eurostat decision to these assets will need large revisions to SNA that would conflict with the treatment of property income on land and sub-soil assets.

## **Classification Issues**

In deciding how the UK receipts should be classified we considered the following:

- what the payment is for;
- the payment is fixed at the end of the auction and does not depend on turnover or profit during the licence period (about 21 years);
- the licences are not transferable.

These points are not necessarily true for all countries, since the method of issuing licences has differed between them. All European Union countries are however governed by legislation on this subject. Under EU licensing directive 97/13/EC, all EU third generation licences are non-transferable.

The ONS considers transferability to be an important part of the debate. Although we do not see it affecting the conclusions, it helps understanding of the issues if each case is separately worked through. Under the current SNA it is difficult to classify the receipts as sale of an asset if the licences are non-transferable. It is also easy to be misled into accepting the sale of an asset solution by only considering the transferable case, by failing to distinguish the difference between the initial issue and subsequent transfers.

An argument has been put forward that non-transferable licences are the same as transferable ones because the company that owns them can be taken over. When this occurs it is recorded as a financial transaction and not a transfer of assets. We believe the SNA/ESA definition of transferable relates to whether the asset can be purchased separately. If we were to extend the definition then non-transferable leases on land and other non-transferable contracts would also be included, which conflicts with the precise descriptions in SNA/ESA that currently exclude them.

## **Classification of Assets**

As a prerequisite to deciding the correct classification we first need to correctly identify the assets involved.

SNA/ESA define economic assets as:

SNA 10.2&13.12 - "Economic assets are defined as entities: (a) over which ownership rights are enforced by institutional units, individually or collectively, and (b) from which economic benefits may be derived by their owners by holding them, or using them, over a period of time." [ESA 7.10 similar]

## **The Spectrum**

The electromagnetic spectrum itself is not explicitly mentioned in the SNA/ESA asset classification. That the spectrum is an asset can be seen through governments using it for economic benefit. If government chose to sell it, there would be economic gain. So the spectrum is an asset for its owner. By international convention the spectrum is owned by the central government of each country, and that ownership can not be transferred.

SNA/ESA define non-financial non-produced assets as:

SNA 13.17 - "By definition, non-produced assets come into existence other than through processes of production. The classification is designed to distinguish assets on the basis of the way they come into existence. Some of these assets occur in nature; others, which may be referred to as constructs devised by society, come into existence by legal or accounting actions." [ESA annex 71., 7.16, 7.17 similar]

The spectrum has always existed as a natural asset, even if the technology to use it hasn't, so it is a non-financial non-produced asset.

Non-produced assets can be tangible (AN.21) or intangible (AN.22). SNA/ESA define tangible non-produced assets as:

SNA 13.18 – "Tangible non-produced assets are natural assets – land, sub-soil assets, non-cultivated biological resources and water resources – over which ownership may be established and transferred. The natural asset boundary in the System is determined, in compliance with the general definition of an economic asset, by whether the assets are subject to effective ownership and are capable of bringing economic benefits to their owners, given the existing technology, knowledge, economic opportunities, available resources, and set of relative prices. Environmental assets over which ownership rights have not, or cannot, be enforced, such as open seas or air, are excluded." [ESA 7.18 similar]

SNA/ESA define intangible non-produced assets as:

ESA annex 7.1 – "Non-produced assets that are constructs of society. They are evidenced by legal or accounting actions, such as the granting of a patent or the conveyance of some economic benefit to a third party. Some entitle their owners to engage in certain specific activities and to exclude other institutional units from doing so except with the permission of the owner. Intangible non-produced assets consist of patented entities, leases and other transferable contracts, purchased goodwill and other intangible non-produced assets."

SNA 13.19 – "Intangible non-produced assets include patented entities, transferable contracts, purchased goodwill, etc. Entities not evidenced by legal or accounting actions – i.e., such actions as the granting of a patent or the conveyance of some economic benefit to a third party – are excluded." [ESA 7.19 similar]

The spectrum occurs in nature. Ownership of it is enforced by governments and international convention. That convention does not allow its transfer, but we can envisage that transfer could occur if allowed. The spectrum is not a construct of society. The spectrum therefore fits into the family of assets known as tangible non-produced asset and should be classified as AN.21. There is international agreement on this. There are currently in SNA/ESA four categories of such assets: land (AN.211), subsoil assets (AN.212), non-cultivated biological resources (AN.213) and water resources (AN.214). The spectrum does not fit into any of these categories, as currently defined.

During the debate on classification of receipts it emerged that the spectrum had not been omitted from SNA/ESA by design. Where this situation occurs, or assets are created that were not foreseen at the time the manuals were written, there is usually agreement on how they should be classified.

As the spectrum is not currently covered, more sub-categories should be created in SNA/ESA to include it and other natural assets that are also currently not covered.

### **The licence**

The licence allows the owner to legally engage in certain specific activities (e.g. use of the spectrum on a determined wavelength for a limited time) and to exclude other institutional units

(e.g. everyone, as these are exclusive licences) from doing so except with the permission of the owner. As such, the licence is seen as an intangible non-produced asset (AN.22).

At this stage we need to distinguish between two types of licence: transferable licences and non-transferable licences. Transferable licences further fit the definition of intangible non-produced assets, since they allow conveyance of economic benefit to a third party.

SNA/ESA define Leases and other transferable contracts (AN.222) as:

ESA annex 7.1 & SNA annex to chapter 13 (identical) - "Leases or contracts where the lessee has the right to convey the lease to a third party independently of the lessor. Examples include leases of land and buildings and other structures, concessions or exclusive rights to exploit mineral deposits or fishing grounds, transferable contracts with athletes and authors and options to buy tangible assets not yet produced. Leases on the rental of machinery are excluded from non-financial intangible assets."

There is international agreement that transferable licences are assets that come under the classification Leases and other transferable contracts (AN.222).

It is also clear that non-transferable licences do not come under this heading, nor any explicit category under this heading. SNA/ESA do however have a "catch-all" category. Other intangible non-produced assets (AN.229), defined as:

ESA annex 7.1 & SNA annex to chapter 13 (identical) - "Intangible non-produced assets not elsewhere classified."

There is in Europe agreement that, if they need to be classified, non-transferable contracts would be classified as AN.229.

But even if non-transferable contracts are assets do they have any value? If they don't then their classification is irrelevant. We recognise that, as before, there is a contract that allows the owner the legal action of engaging in certain specific activities and to exclude others from doing so except with the permission of the owner.

For the sake of argument, at this stage we will proceed by recognising both types of licences included as assets. The UK ONS's interpretation of SNA/ESA is that if they are auctioned by government at market value the contracts themselves have no value at that stage. A transferable licence may subsequently have value, but any value in a non-transferable licence can, by definition, never be realised or, by extension, measured, so under SNA/ESA it will always be zero.

There are also other assets involved. These are financial assets, which are connected to the timing of cash payments to enable use of the spectrum. The identification of these financial assets follow from the correct classification of the transactions.

### **Classification of Receipts - Rents (D.45)**

To aid understanding of the rents option, we will first return to the definition of the assets and the economic benefits arising from use of the assets. These are defined as:

ESA 7.11 - The economic benefits consist of primary incomes (operating surplus by using, property income by letting others use) derived from the use of the asset and the value, including possible holding gains/losses, that could be realised by disposing of the asset or terminating it. (SNA 13.12 similar)

In the rents option the economic benefit to government is the property income derived by letting others use the spectrum.

SNA/ESA define property income (omitting the parts relating to financial assets to help clarity) as:

ESA 4.41 - "Definition: Property income (D.4) is the income receivable by the owner of ... a tangible non-produced asset in return for ... putting the tangible non-produced asset at the disposal of, another institutional unit. Property incomes are classified in the following way in the system: a) interest (D.41); ...; e) rents (D.45)."

SNA 7.87 - "Property incomes are receivable by the owners of ... tangible non-produced assets, mainly land and subsoil assets. Property incomes accrue when the owners of such assets put them at the disposal of other institutional units. ... Owners of land and subsoil assets may put them at the disposal of other units by arranging contracts or leases under which the tenants, or users of the assets, agree to pay the owners property incomes in the form of rents. The regular payments made by the lessees of subsoil assets are often described as royalties, but they are treated as rents in the System. The term "rent" is reserved in this manual for rents on land and subsoil assets, payments under operating leases being described as "rentals".

Here, as owner of the tangible non-produced asset, government accrues property income for allowing mobile phone companies to use the asset.

It has been argued that the spectrum is not covered by SNA 7.87 as no explicit mention is made to it, just "Owners of land and subsoil assets may put them at the disposal ...". However, the first sentence of 7.87 states "tangible non-produced assets, mainly land and subsoil assets", thus allowing other categories to be covered under property income. As we mentioned earlier SNA/ESA recognise two other specified categories of such asset, plus there are other categories that are not currently covered.

It has also been argued that the phrase "The regular payments made by the lessees of subsoil assets are often described as royalties, but they are treated as rents" prevents anything other than regular payments being described as property incomes. However, both ESA (4.41, 4.75 - "Time of recording of rents: Rents are recorded in the period when payable", 5.129) and SNA (7.128, see later) recognise the accrual basis for recording property incomes, and thus recognise that timing of actual cash payments is not a consideration. The use of the words "regular payments" in SNA 7.87 is simply defining the characteristic of royalties as a help to the reader and shouldn't be made a condition for all rent payments to be regular. If the regular payments occurred every six months and we are producing monthly accounts, we would accrue the payments to each month during that period.

ESA 4.72-4.74 and SNA 7.128-7.131 give more information on rents on land, and ESA 4.74 and SNA 7.132-7.133 more information on rents on subsoil assets. SNA 7.128 is reproduced below, the other SNA/ESA paragraphs not materially adding anything. SNA/ESA do not give any detailed instruction on rents for the other categories of tangible non-produced assets they identify.

SNA 7.128 - "The rent received by a landowner from a tenant constitutes a form of property income. Rent is recorded on an accrual basis, i.e., rent is treated as accruing continuously to the landowner throughout the period of the contract agreed between the landowner and the tenant. The rent recorded for a particular accounting period is, therefore, equal to the value of the accumulated rent payable over that period of time, as distinct from the amount of rent due to be paid during that period or the rent actually paid." [ESA 4.72-4.74 are equivalents]

Unless it is subsequently transferred, in this option it is not necessary to record any flows or levels concerning the licence. In the European Union there is a directive that prevents such licences being transferable.

This option is favoured by those wishing to see the actual use of the asset reflected during the (lengthy) production process. It also reflects the one-off pre-payments in the financial account.

The accrual principle also allows for consistent coverage of the numerous types of payment mechanisms in different countries. It was seen as particularly helpful in cases where, in addition to an up-front payment(s), fixed payments are to be made in some years. The following ESA paragraphs are helpful in further confirming the treatment in the financial account, particularly 5.129d.

ESA 5.128 - "Definition of Other accounts receivable/payable, excluding trade credits and advances (F.79): The sub-category other accounts receivable/payable excluding trade credits and advances (F.79) consists of all transactions in other accounts receivable/payable excluding trade credits and advances (AF.79) that is financial claims which arise from timing differences between distributive transactions or financial transactions on the secondary market and the corresponding payment. It includes also financial claims due to income accruing over time."

ESA 5.129 - "Sub-category AF.79 includes financial claims created as a result of the timing difference between accrued transactions and payments made in respect of, for example:

- a) taxes; b) social contributions; c) wages and salaries;
- d) rents on land and subsoil assets."

This option is also favoured as it covers both transferable and non-transferable licences. However, this is not universally recognised yet. Interestingly, in its contribution to the debate ABS (Australia) viewed payments for non-transferable licences as rents, and payments for transferable licences as sales of assets. This is explored later.

The main difficulty that people have with the rents option is the accruals principle. Accrued payments are seen by some as artificial, even though the accruals principle underlies the system of accounts. In the UK the payment mechanism was an up-front payment, with the licence lasting about 20 years. If you were renting land it would be unusual, although not unique, to be required to pay 20 years worth of rent in one go. However, this should not disguise the fact that these payments are rents (see SNA 7.128), and that SNA/ESA have perfectly adequate instructions for coping with the pre-payment, through F.79 accruals adjustments. The timing of cash payments does not change the economic reality of the distributive transaction taking place.

The UK chose its payment mechanism in order to achieve pre-payment. It learnt from the experience of the USA government in its Second Generation process. The USA government lost money when a winning company went bankrupt part way through its tenure. This meant the USA government gained no income and were preventing from allowing others to use this part of the spectrum until the bankruptcy was completed. The UK wanted its mobile phone industry to be developed by companies with the necessary financial backing to support the large investment needed, companies without this were unlikely to bid for licences that required pre-payment.

The alternative treatment, sale of asset, records all the payments up-front. In this scenario it is relatively easy for a country with an excessive government deficit to package together many years worth of rent payments for a particular asset, treat them as sales of assets, and hence improve a deficit problem in a particular year - for example the year before an election. The rents option does not allow countries this ability to manipulate their deficits as it stabilises the payments.

In the InterSecretariat Working Group on National Accounts' (ISWGNA) initial report rent was rejected as an option because "Therefore treatment of the payments as rent is ruled out because

this would be applicable only if the spectrum is the sole asset involved". We do not accept this: in the attachment we present an example that recognises two assets (spectrum and licence).

Since ESA is a legal document under European law we recommend that SNA/ESA are amended to formally include recognition of other tangible non-produced assets in new explicit categories. Ideally SNA/ESA should also be modified to replace all relevant references to land, or land and sub-soil assets, with the full range of tangible non-produced assets. However, there is nothing in SNA/ESA to disqualify the immediate adoption of rents as the classification, provided there is acceptance that the spectrum is a tangible non-produced asset.

### **Classification of Receipts - Acquisition/disposal of intangible non-produced assets (K.2)**

For simplicity this option is referred to hereafter as sale of asset.

In this option it is the licence that is seen as the asset with the value and not the spectrum. Although the spectrum is also recognised as an asset, it is effectively ignored despite SNA/ESA pointing to it as an asset that is being used.

ESA 6.06. "Definition: Non-financial non-produced assets (for the definition of assets, see Annex 7.1 to chapter 7) consist of land and other tangible non-produced assets that may be used in the production of goods and services, and intangible non-produced assets."

In this option the licence is created (K.3), sold (K.2) and eventually nullified (K.6) at the end of the licence. At the end of each licence period the process will probably start again with a new licence being created (K.3).

SNA/ESA define the economic appearance of non-produced assets (K.3) as follows:

SNA 12.21 - "Non-financial intangible non-produced assets are constructs devised by society evidenced by legal or accounting actions. They make their appearance in the System when entities are patented or transferable contracts are written, or enterprises are sold at prices that exceed the net worth of the enterprise in question, etc. The patenting consists of the entity being granted legal protection by law or judicial decision. The writing of transferable contracts consists of the coming into force of a binding agreement that provides some economic benefit that can be passed on to a third party independently of the provider of that benefit." [ESA 6.17 is equivalent, also covering tangible assets]

The spectrum suddenly gaining value, even though it has been in existence for all time, is covered by ESA 6.17b and SNA 12.17 & 12.19. It is difficult to estimate the value of this asset but we know the value of it, if sold, will be, at least, greater than or equal to the amounts companies are willing to pay to use it for a short time. The value of the spectrum will change through time because of developments in technology, in the same manner that the value of sub-soil assets such as coal or oil will change if cheaper alternative fuel sources are discovered and widely used. Such a revaluation is covered in SNA/ESA in nominal holding gains (K.11).

Between publication of SNA68 and SNA93 there was a booklet produced explaining methodology for items missed from SNA68. One such example was for long-term valuation of assets. It used a formula, based on a short-fixed term value, and expected interest rates, and extrapolated the value over a longer fixed time. This method was not incorporated in SNA93, but does recognise that the spectrum is worth more than the payments made to use it over the licence periods.

However, in the sales option the value of the spectrum is effectively not taken account of and all the value attributed to the licence. This is because the spectrum is valued using the receipts for the limited time others use it, this value is immediately transferred to the licence and so the value of the spectrum returns to zero. This seems intuitively wrong, like saying that if a government were (able) to sell the spectrum itself it would get nothing for it.

Another way to look at this is to consider the analogous cases of other tangible non-produced assets, such as land and sub-soil assets. Here we would be saying that (unless there was an independent valuation method) the value of land is zero if someone is renting it, as all the value is in the lease. SNA/ESA does not instruct such a subtraction of the “lease value” from the value of the tangible non-produced asset. If we see all the value in the contracts to rent the land, rather than the rent payments themselves, then these too should be recorded as sales of assets, with payments brought forward in the accounts to the time the contracts have been agreed. If we follow this logic then there would be no D.45 property income in the accounts at all. It is doubtful that the authors of SNA/ESA would want us to go along this route, otherwise why would they have spent so much effort defining D.45 property income?

Proponents of the sales option see the appearance of the licence covered by 6.17d. This is due to the sentence “Intangible non-financial non-produced assets arise when entities are patented or transferable contracts are written”. Again, we need to consider the two cases: transferable and non-transferable licences.

For transferable licences an intangible asset is created if it has value, since a transferable contract has been written. The valuation of it is a different matter, which we will look at later.

For non-transferable licences the only way an intangible asset can be created, within the existing SNA/ESA framework is to see the spectrum as a patented entity

SNA annex 1, § 69, page 532, defines the patented entity as the invention produced, such as a pharmaceutical drug. They are formed through research & development, and are intangible non-produced assets. The spectrum as an entity does not fall into this category, since it is a tangible non-produced asset. Payments for the right to use tangible non-produced assets are rents, payments for the right to use intangible non-produced assets are rentals. This is further evidence for the case of not recognising non-transferable licences as assets, which is consistent with them having no value.

There is a similar difficulty with the economic disappearance of non-produced assets (K.6). Again transferable licences are covered and non-transferable ones do not fit the definitions.

SNA/ESA define the acquisition/disposal of non-produced assets (K.2) as:

SNA 10.120 - “Non-produced non-financial assets consist of land, other tangible assets that may be used in the production of goods and services, and intangible assets. Changes in the value of these assets owned by institutional units resulting from transactions with other institutional units are recorded in the capital account. ...”

SNA 10.126 - “In practice, these [acquisitions less disposals of other [i.e., non-land] tangible non-produced assets] consist of acquisitions less disposals of sub-soil assets. ...” [ESA 6.10 equivalent, but also covers the two other asset groups: non-cultivated biological resources and water resources]

SNA 10.129 - “The owner of subsoil assets, who is often a government unit, may grant a concession or lease to another institutional unit entitling the latter to extract the asset over a specified period of time in return for a series of payments (usually described as royalties). This arrangement is similar to a landowner conceding to a tenant the right to exploit the land in return for the payment of rents, except that subsoil assets are exhaustible. The payments are property incomes and recorded as rent in the primary distribution of income account. However, the holder of the concession or lease may be entitled, or permitted by the owner, to sell the concession or lease to a third party. Such

a sale is recorded in the capital account, but as the sale of an intangible non-produced asset. It is therefore recorded under a separate heading in the account. Sales of leases on land or buildings are treated similarly.”

SNA 10.130 - “Intangible non-produced assets consist of patented entities, leases or other transferable contracts, purchased goodwill and other intangible non-produced assets. Such leases are on land, subsoil assets and residential and non-residential buildings. The value of the acquisitions or disposals of leases or other transferable contract recorded in the capital account consists of payments made to the original or subsequent tenants or lessees when the leases or concessions are sold or transferred to other institutional units. The value of acquisitions of intangible non-produced assets include the associated costs of ownership transfer incurred by the purchaser while disposals are valued after deducting the costs of ownership transfer incurred by the seller. The costs of ownership transfer are a component of gross fixed capital formation.” [see also ESA 6.09-6.12]

Spectrum licences are not explicitly mentioned in ESA 6.12, although this is not a problem as it only gives examples and does not cover all eventualities. In ESA 6.12 transferable licences are covered by leases or other transferable contracts. Also, for the first time non-transferable licences seem to be covered, through other intangible non-produced assets if we recognise them as such assets. This latter argument is redundant though as, by definition, non-transferable licences can’t be sold.

SNA here is clearer than ESA in determining treatment. By extending the coverage of SNA 10.129 to cover the spectrum, which is non-controversial if we recognise the spectrum as a tangible non-produced asset, 10.129 can be rewritten as:

“Governments, as owners of the spectrum, may grant a licence to corporations entitling them to use the spectrum over a specified period of time in return for a series of payments. This arrangement is similar to a landowner conceding to a tenant the right to exploit the land in return for the payment of rents. The payments are property incomes and recorded as rent in the primary distribution of income account. However, the holder of the licence may be entitled, or permitted by the government, to sell the licence to a third party. Such a sale is recorded in the capital account as the sale of an intangible non-produced asset.”

Thus, using SNA points us to the payments as rents and there is no case for the initial issue of the licence as sale of an asset. For transferable licences any subsequent sale of the licence by the second party to a third party is a sale of an asset. SNA 10.129 is written in such a way as to recognise that the first and second transactions are different and hence rules out treating the granting of the licence by government as an initial sale.

However, although this option appears incorrect it does have some support internationally. The next few paragraphs debate some of the points put forward in favour of the option.

The first is that businesses will view the licence as an asset recorded in the corporation's balance sheet. With this asset, they will produce a market service consumed by the users of the mobile phones. Businesses will amortise the asset, forming a steady stream of payments into their profit & loss account similar to the concept of accruing rent over the lifetime of the licence. However, in SNA/ESA we can only depreciate fixed assets, hence the use of the term “consumption of fixed capital” rather than depreciation (SNA 1.62). The licences are not fixed assets.

SNA recognises that there can be conflicts between business accounting and economic theory. It includes a paragraph, 1.59 reproduced below, which explains the way forward when such a conflict arises:

SNA 1.59 - “The design and structure of the System draws heavily on economic theory and principles as well as business accounting practices. ... When business accounting practices conflict with economic principles, priority is given to the latter, as the System is designed primarily for purposes of economic analysis and policy-making. ...”

Another argument put forward is that “sale of an asset” sticks to the common perception of facts and is therefore easy to explain. We argue that SNA/ESA provides a framework for dealing with the timing of payments, and how easy or difficult this is for common understanding is not an

issue. We have to record the economic theory, not the simplified version used by the media for public consumption.

Another argument put forward is that “sale of asset” is easy to implement, taking the valuation of the sale through the auction and not having to impute any payments (i.e., no accrued rent payments). Again we counter this by arguing that SNA/ESA provides a framework for dealing with the timing of payments, and how easy or difficult this is for implementation is not an issue. In cases where licences are paid for in tranches, there would indeed be imputed payments (trade credits, F.71).

Another argument is that there is a real acquisition of an asset by the purchasers, who by investing a lot of money expect significant income in the future. We counter this by agreeing that there are payments being made with the expectation of future returns, but these payments are classified as rents, as the contract is really only the agreement to use (rent) the spectrum.

Another argument is that there is an identifiable impact on the government deficit in a given year. However, this impact is a false one, with, in the UK, over 20 years worth of activity being reflected in one year’s deficit.

Proponents of this option do recognise difficulties with it, such as:

- lack of comparability when contract terms (notably payment conditions and length of licence) are different from one country to another;
- it may be argued that this option is not appropriate in case of non-transferable licences;
- it might be seen as a precedent allowing some other business licences to be no longer treated as taxes;
- it opens the door to allow governments to manipulate deficits and tax burdens by not separating the two assets, for example by creating auctions for licences for other business taxes;
- the initial “sale” of the licence is not covered in SNA/ESA as a sale, and hence would need need revision, leading to a contradiction with SNA/ESA on the use of similar assets like land.

The timing of payments for sales of assets is described in ESA 5.125d & SNA 10.130 as payments made when the assets are sold. Where there are tranches, or staggered instalment payments, the full amount is shown up-front as the transaction and trade credits shown in the financial account (F.71) for the remainder.

One of the points mentioned earlier was that, due to the process of valuation, this option effectively sees all the economic value in the licence, with none left in the spectrum. The price paid for a licence can be broken down into two components: the value of the rents, and the value of the transferability of the licence. The second can be seen as the profit, above the payments to government, that a telecoms company could make by selling the licence if the value of using the spectrum appreciated after the licence was granted. It may, of course, go down as well as up.

When licences are non-transferable the second component does not exist, therefore all the payments are rents. Those who see the value in the transferable licence rather than the rent payments should consider the UK case, where the payments for non-transferable licences were large and no transferability component exists.

When licences are transferable, if they are sold by auction, it can be seen that the auction price represents the rent payments only. The value of the transferability of the licence at the time of granting will be zero.

If transferable licences are granted for a price below what they could have fetched at auction, the agreed price will represent the rent payments. In this case the licences will have a transferability value although as it will be impossible to measure this until a licence is subsequently transferred, so will be zero. We can't even consider measuring it through an increase to the company's market capitalisation, as this will be based on market sentiment and the market's view of future earnings potential.

Before leaving the option of "sales of assets" it is worth mentioning something that has been part of the ISWGNA and the Committee on Monetary, Financial and Balance of Payments Statistics' (CMFB) debates. ISWGNA introduced a time limit of one year: licences for one year or less were considered rents, over one year as sales. CMFB have acted similarly, but used five years rather than one. We can find no precedent in SNA/ESA for including these time limits for non-produced assets, and believe a major alteration to SNA/ESA would be required to include them.

### **Summary**

For non-transferable licences the classification of payments as rents seems clear. For transferable licences it is less clear, but working through the arguments also points to rents as the correct option. If subsequent sales occur these are recorded as sales of assets, with the valuation of the sale as described earlier, with the rent continuing to be paid to the first party. Therefore, there is consistent treatment of a similar activity. Ideally SNA/ESA should be revised to amend the deficiencies brought to light by this subject, however treatment as rents is consistent with the principles of both manuals.

The rents option needs a small revisions to wording for completeness. The sales of assets option would only be possible with revisions to the underlying concepts of SNA/ESA.

## Appendices

The following shows a simple example of how we view the rents option should be recorded in the accounts. It is split into two parts: example 1 covering the non-transferable case, and example 2 covering the case where a transferable licence is transferred.

### Example 1:

*On 31 December in year zero, Telecom1 pays £20bn pre-payment of rents to government, for 20 years use of spectrum. The money is paid from one bank account to another. For simplicity, assume the company does not make any return on its payments for using the spectrum (we could build in profits, but that makes the example overly complicated). The row headings on the left refer to SNA/ESA codes (D.45=rents, K.2=sales of assets, F.2=bank deposits, F.79=accounts receivable/payable, K.3=creation of non-financial asset)*

#### Central government flows

	Yr0	Yr1	Yr2	Yr9	Yr10	Yr11	Yr19	Yr20
D.45	0	1	1	1	1	1	1	1
K.2	0	0	0	0	0	0	0	0
F.2	20	0	0	0	0	0	0	0
F.79	-20	1	1	1	1	1	1	1
K.3	20	0	0	0	0	0	0	0

#### Central government balance sheet

	Yr0	Yr1	Yr2	Yr9	Yr10	Yr11	Yr19	Yr20
AN.21	20	20	20	20	20	20	20	20
F.2	20	20	20	20	20	20	20	20
F.79	-20	-19	-18	-11	-10	-9	-1	0

#### Telecom1 flows

	Yr0	Yr1	Yr2	Yr9	Yr10	Yr11	Yr19	Yr20
D.45	0	-1	-1	-1	-1	-1	-1	-1
K.2	0	0	0	0	0	0	0	0
F.2	-20	0	0	0	0	0	0	0
F.79	20	-1	-1	-1	-1	-1	-1	-1

#### Telecom1 levels

	Yr0	Yr1	Yr2	Yr9	Yr10	Yr11	Yr19	Yr20
F.2	-20	-20	-20	-20	-20	-20	-20	-20
F.79	20	19	18	11	10	9	1	0

## Example 2:

Now assume the telecom company subsequently sells licence to another, telecom2, for £12bn at end of year 10. Again, for simplicity, telecom2 does not reap any benefit from using the asset. The government account remains unchanged from example 1. We consider part of the £12m payment as purchasing the future rent payments, which would yield;

In example 2 we exclude the associated cost (the accruals adjustment) in the transfer of the licence. Remember that ESA 6.12, in describing sales of intangible assets, stated that "...The value of acquisitions and disposals of intangible non-produced assets excludes the associated costs of ownership transfer ...". These associated costs have always been assumed to be part of capital formation, but where there are pre-payments there are also financial costs involved. This has, not surprisingly, not been included in SNA/ESA as they have not occurred before.

### Telecom1 flows

	Yr0	Yr1	Yr2	Yr9	Yr10	Yr11	Yr19	Yr20
D.45	0	-1	-1	-1	-1	0	0	0
K.2	0	0	0	0	2	0	0	0
F.2	-20	0	0	0	12	0	0	0
F.79	20	-1	-1	-1	-1-10	0	0	0

### Telecom1 levels

	Yr0	Yr1	Yr2	Yr9	Yr10	Yr11	Yr19	Yr20
F.2	-20	-20	-20	-20	-8	-8	-8	-8
F.79	20	19	18	11	0	0	0	0

### Telecom2 flows

	Yr0	Yr1	Yr2	Yr9	Yr10	Yr11	Yr19	Yr20
D.45	0	0	0	0	0	-1	-1	-1
K.2	0	0	0	0	-2	0	0	0
F.2	0	0	0	0	-12	0	0	0
F.79	0	0	0	0	10	-1	-1	-1

### Telecom2 levels

	Yr0	Yr1	Yr2	Yr9	Yr10	Yr11	Yr19	Yr20
AN.22	0	0	0	0	0	0	0	0
F.2	0	0	0	0	-12	-12	-12	-12
F.79	0	0	0	0	10	9	1	0